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Psychology of Adolescent Online Behaviour and Learning in Slovenia and the Southern States of Mediterranean Europe

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Abstract

Adolescent behaviour using mobile technology is a concern to parents and educators worldwide. Slovenia, like the all the European states in the southern Mediterranean region, is concerned about cognotics in education. How will the emerging cyber youth culture affect traditional teaching and learning? What can be gained by adopting mobile technology and at what cost? Does the use of cyber technology remove human contact and does it create a schism between generations? This paper answers these questions and provides a snapshot of the cyber readiness of Slovenia. It offers suggestions for best practices for combining the best attributes of traditional schools and cyber schools.

Keywords: Mobile technology, Cyberschooling, Cognotics in education, Adolescent online behaviour

1 Bombs Mobs and Blogs

The phenomenon of urban adolescent mobile phone usage is one that includes heavy use of Short Message Service (SMS), bomb calls, games, personalization, gender identification, friend communication; localization, download of ringtones, screensavers and email alerts, picture messaging, and moblogging. Parental supervision, or tethering, and strict school policies are obstacles to the use of this emerging technology for teaching and learning. Other obstacles include price sensitivity, addiction, high use and problem use, (Syed & Nurullah, 2011).

Young people in the European Union who are under 30 and live on the Southern shore of the Mediterranean make up 40% of the population in the region. The common sentiment is that youth in the Southern Mediterranean countries are being used as a cheap labour supply by international corporations, (European Alternatives, 2013). The European Union is committed to raising the economies of those states by investing in education and technology infrastructure in the school system and in industry.

2 Case Study

Students in the Mediterranean region of the EU have access to the Internet and mobile technology as evidenced by studies conducted by European School Net (2012). Many teachers have whiteboards though the use of advanced technology is not universally adopted. Betty Mouth is a linguistics teacher in an elite private school located in the Principality of Monaco. A student in the school was identified as having difficulty in school but is an enthusiastic user of gaming technology and other popular aspects of Internet applications. “I asked the [students] the question as to whether or not the very idea [of online learning] would be appealing and few enjoyed the thought.” The emphatic refusal by the student cited a need to be in personal contact with classmates and teachers in a physical classroom (personal communication, June 2013).

The southern states of the Euro Zone enjoy the prosperity of Western Europe but also suffer the ill effects of the economic crisis. Slovenia is well positioned through both geographic proximity and cultural distance to cherry pick the attributes of the Information Society that best suit it. Parents and schools must be willing to accept information technology and to empower youth to take advantage of its opportunities.

Countries that are well-researched by Information and Communications Technology (ICT) ethnographers include the United States, Japan, Philippines, and Western European countries Norway, Finland, Germany, and United Kingdom. Slovenia is a Mediterranean country that has much in common with its EU neighbors Italy and Austria and is therefore worthy of further study.

3 Slovenia and the Information Society

The Programme for International Student Assessment [PISA] (2006) ranks Slovenian science education as 4th best in the EU and 12th best in the world. The Organisation for Economic Cooperation and Development [OECD] Better Life Index (http://www.oecdbetterlifeindex.org/countries/slovenia/) adds further evidence to the strength of the educational system in Slovenia. The average number of years of education in Slovenia is 18.4 between the ages of 5 and 39. The average student scored 499 in reading literacy, math and science in the 2009 PISA assessments, which is very near the OECD average. There is evidence that Slovenia provides an equitable and adequate public education regardless of economic class, (Programme for International Student Assessment, 2009).

Information and Communications Technology (ICT) investments are responsible for half of the European Union's productivity growth in recent years (European Commission, 2013). Slovenia is geographically near the industrialized states of Western Europe and joins in that growth.

Table 1. Electronic communication services, Slovenia, 1st quarter 2013

	I–III 2013	I–III 2013 / I–III 2012	I–III 2013 / X–XII 2012
	number	index	
Fixed telephony service			
Outgoing traffic[1)2)] (1,000 minutes)	278,428	96.0	104.5
national	257,407	96.2	104.7
international	21,020	94.0	102.8
Classical main telephone lines[3)]	347,561	85.4	95.9
VoIP connections[3)]	414,860	109.3	103.7
Mobile telephony service			
Outgoing traffic[2)] (1,000 minutes)	984,414	102.6	99.7
national	961,771	103.0	99.9
international	22,643	89.6	92.5
Mobile network users[3)]	2,243,910	103.6	99.9
mobile network subscribers[3)]	1,620,637	104.1	100.7
mobile network prepaid users[3)]	623,273	102.4	97.9
SMS messages sent	536,911,207	126.9	101.3
Internet access			
Broadband Internet connections[3)]	518,155	102.9	101.0
xDSL connections[3)]	262,499	97.6	99.8

1) Voice traffic without traffic to internet dial-up service providers.
2) Totals do not always add up due to rounding.
3) At the end of the corresponding quarter.
Sources: SURS, APEK

(Republic of Slovenia, 2013)

Europe had 741 million mobile cellular users in 2010 out of 5282 global subscriptions.
Students typically use web enabled cell phones but also have I-Pads or Android tablets. Tablets that are optimal for use in education include applications to store online textbooks, illustrations, RSS feeds and video/audio feeds that can be used away from an Internet connection or connect via Wi-Fi or Internet connection at school, home, university, or Telecentre. The Android operating system [OS] will soon be the predominant OS for smartphone mobile devices, (Muir, 2013).
Compared to other countries at grade 8 students in Slovenia are relatively light users of their own mobile phone or own laptop in school for learning purposes. At other grades these figures place Slovenia in the middle group of European Union (EU) countries.
Still, in the realm of education in Slovenia there are fewer computers for students than the EU average.
As for computers connected to the internet in schools, in Slovenia there are desktop computers above the EU average at grade 4 and 11 vocational, and just below the average for

laptop computers as grade 11. At grade 8 there are fewer students per desktop computer than other countries, as at other grades, but Slovenia is sixth at grade 11 in terms of students per laptop (European School Net, 2012).

4 Education Models of Human Activity

Rita Micarelli and Giorgio Pizziolo (2012) observe that virtual life prevents young people from solving real life problems and warn of the potential for "a Brownian aimless promenade" emerging from youth engulfed in virtual reality. In contrast to that theory they conclude the contraposition between virtual and experiential life can interact to originate more complex learning processes (2012, p. 148). The evidence of that can be seen in spontaneous political eruptions that began with the Facebook- and Twitter-facilitated Arab Spring that spread to all parts of the globe where real life problems are addressed collectively by youth connected in social networks.

ICT in education must not be relegated to automation or rote learning. It must involve problem solving, interaction, and personal reflection (Knowles, 1988). Delivery of learning content requires utilizing repositories of Open Educational Resources (http://extraink.weebly.com/open-educational-resources-oer.html). It requires confidentiality of communications, and it requires Socratic as well as Didactic processes.

5 Telecenters

The institutional structure for blended learning is present but not in schools where Internet use is restricted. One option is the Telecenter where resources are collected and made available free of charge to the public. "A Telecenter is a dynamic public place where people can find information, develop products and services, learn and communicate while developing digital skills through access to ICT, opening the door to innovation, resources, new ideas and partners thus creating opportunities …" (http://www.telecentre.org/wp-content/uploads/2013/05/Infographic-on-Telecentres_EN.jpg).

6 Emotional Intelligence

Parental supervision can be either facilitative or restrictive to adolescent participation in online learning programs. Parents are correct in the need to assess the potential dangers facing youth on the Internet. Abusive behaviours include bullying, sexting, and addiction. There are also external dangers related to privacy and access to inappropriate content. Unsolicited advertising on Facebook and other social networks are difficult to monitor and filter. Adolescents are prone to exploration or to follow friends to sites that may be unsafe.

Part of critical thinking that must be taught for responsible Internet use is evaluation of electronic sources. This is part of real life problem solving that moves from the scope of pedagogy to that of andragogy, (Knowles, 1988). Small children must be guided by parents and teachers who work together in a blended environment. Older students can develop skills that will enable them to make the transition to adulthood with an understanding that every site on the Internet must undergo strict analysis for security and validity purposes.

Parents and teachers must be aware that adolescents will not disclose everything they encounter on the Internet to adults for fear of facing restrictions. If electronic blocks are placed on access resourceful adolescents will be challenged to circumvent the restrictions. Therefore full disclosure by teachers as well as learners is the best practice.

Funded by the European Union, the Insafe network provides a range of information, awareness-raising tools and educational resources on issues relating to online safety for parents and teachers, and children and young people (http://t.co/uZQ0snG). Insafe provides a range of information for children and young people. The Pan-EU Youth website (http://paneuyouth.eu/) is a place for young European citizens to have their voices heard about technology issues that matter to them. It is a resource designed for teens.

School policies often prevent the use of emerging technology for teaching and learning by placing restrictive firewalls blocking access to repositories of learning content. Students are often restricted from bringing and using personal computers, tablets or smart phones to school eliminating a potential investment in learning technology that the school cannot itself afford.

7 Blended Learning

The role of technology in education is based on a theory of distributed cognition that includes an emerging sociocultural context. Rapid globalization in education is driven by mobility that extends beyond place (AACE, 2012). We are bound, as was Prometheus, because we are made of clay yet given the gift of fire that enables progress and civilization. In context, acquisition of knowledge without human contact is devoid of culture.

A best practice in cyber education is blended learning. An institution committed to face-to-face instruction can add World Wide Web approaches first by adding email, then an online discussion forum, and eventually adding elements of learning content management software (LCMS). This achievement has many attributes for the traditional school including saving of printing costs and adoption of standardized curricula. Blending the traditional classroom with online resources can be achieved by using active learning approaches such as group activities combined with individual research. Collaboration is one of the great advantages of the web and is an approach that supports solving real life problems, (Ko, & Rossen, 2010).

A needs assessment of young learners conducted through Telecenters around the world in 2012 proved there is a wide range of interests in learning.

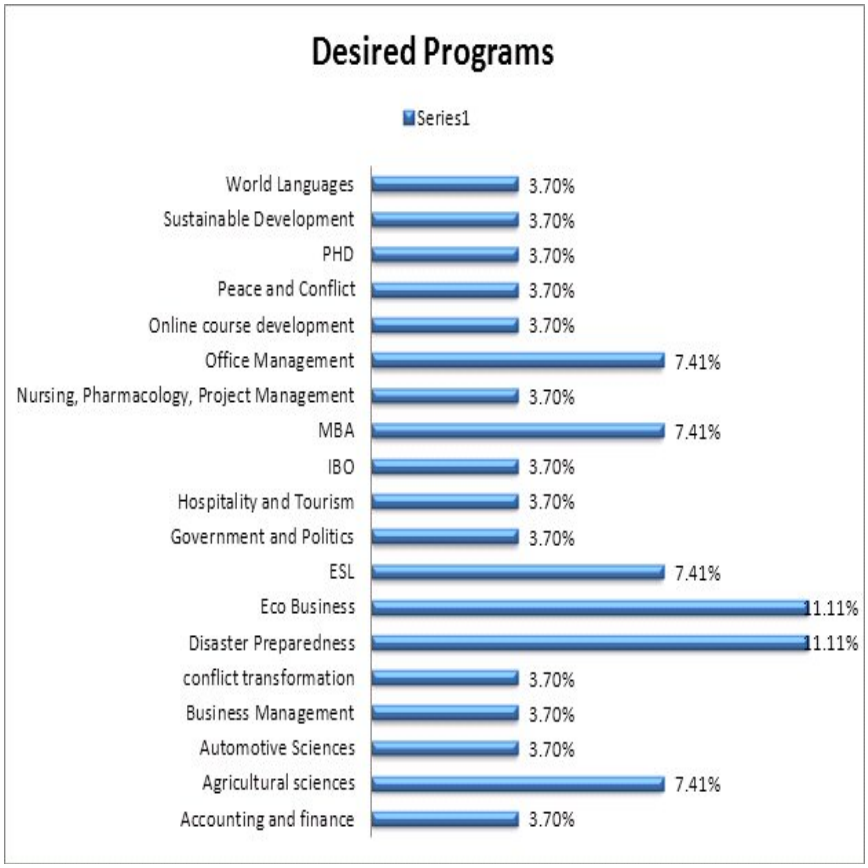

Figure 1. World Virtual School Needs Assessment

The study, supported by United Nations Education Social and Cultural Organization (UNESCO), found primary barriers to cyber learning include language and literacy, teacher preparation, Internet access, and electrical power (Muir, 2013).

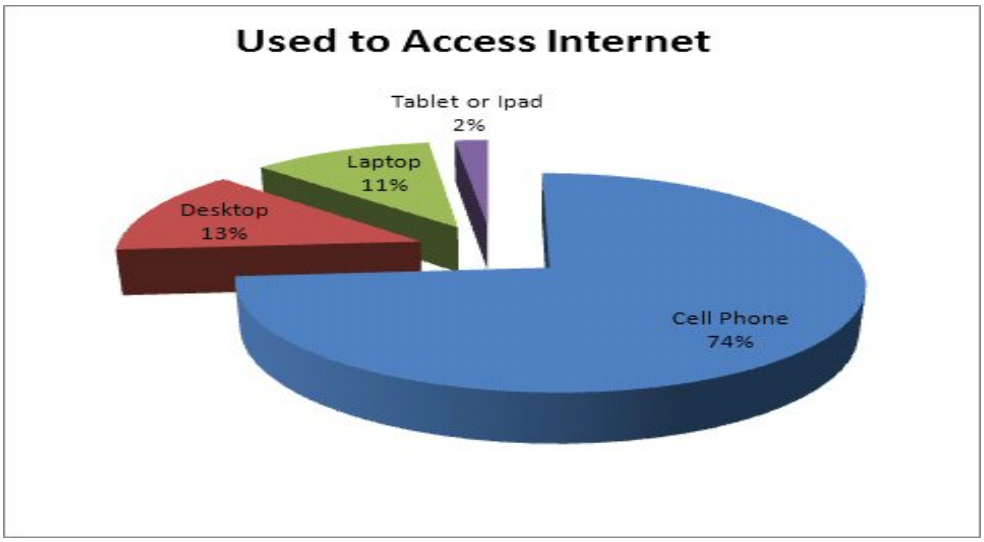

Figure 2. World Virtual School Needs Assessment (Muir, 2012)

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